

The Influence of Some Selected Factors
Upon the Completion of
Correspondence Study Courses

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CHAPTER I

INTRODUCTION AND STATEMENT OF THE PROBLEM

Growth of Correspondence Study Enrollment

One of the earliest forms of university extension activity was instruction by the correspondence study method. Unfortunately, in the early days of its development this method was seized upon and ruthlessly exploited by some unscrupulous operators with the result that the method became the object of ridicule and fell into disrepute among more conservative educators. To some extent this attitude upon the part of educators still persists, although there are many signs that the antipathy to the correspondence method of instruction is gradually yielding to an appreciation of the fact that there are many situations in which correspondence instruction can fill a need for educational service. Illustrative of this change is the 360 per cent increase in college level course enrollments during the two decades between 1930 and 1952 reported by the members of the National University Extension Association in the Morton study.¹

In addition to the 133,233 college level enrollments in 1951-1952, the study also shows an increase in the number of institutions offering correspondence work on the college level from twenty-seven

¹John R. Morton, University Extension in the United States (Birmingham, Alabama: University of Alabama Press, 1953), p. 46.

to forty-four in this same period. Many of these N.U.E.A. members also added high school courses to their offerings with a resultant increase in enrollments from 2,005 in 1930 to 22,666 in 1951-52.¹

This is not a complete picture of the offering of correspondence courses by colleges and universities because there are some giving this type of instruction who are not members of the N.U.E.A. A large number of these schools entered the field during World War II and made their courses available to their own and other students through contracts with the Armed Forces Institute. Because these schools are not members of the N.U.E.A. it is difficult to assemble reliable data concerning the scope of their enrollments or offerings.

In addition to the colleges and universities, there are two other groups of agencies offering correspondence study courses. The first of these is the Armed Forces. The Navy, Marine Corps, Army, and Air Force each has its own correspondence study department through which instruction is provided to personnel in the several branches of the services. This instruction is not all technical. The Marine Corps Institute, for example, offers a wide selection of courses that are academic in nature.

The Navy in the fiscal year 1951-52 enrolled 175,703 individuals in its total correspondence program. Through the correspondence center at Brooklyn, New York, 97,813 officers and 74,079 enlisted men were entered in 204 courses.² In addition, 3,911 persons were enrolled in

¹Norton, op. cit., p. 46.

²Letter from J. J. Hession, Head, Training Publications Section, Bureau of Naval Personnel, August 12, 1953.

twenty courses offered by the Submarine School, the Bureau of Medicine and Surgery, the Naval Intelligence School, and the Naval War College. The Marine Corps Institute enrolled 28,503 in the same year.¹

While no complete figures are available for the enrollments taken by the Air Force Extension Course Institute for 1951-52, the educational director suggests approximately 32,000 as a reasonable figure.² It should be pointed out that at this particular time this agency was re-organizing its operation. During the same year the Army enrolled 105,849 persons in its correspondence program.³

Any discussion of the activities of the armed forces in the home study field which failed to mention the United States Armed Forces Institute would be seriously negligent. The Armed Forces Institute has undertaken probably the most extensive program of correspondence study of any agency operating in the field. The program covers academic work on both the elementary and secondary level and includes the widest possible selection of technical and vocational subjects, which are applicable not only to military assignments, but to civilian life as well. In addition through contracts with cooperating colleges and universities the Institute makes college credit courses available to servicemen.

During the fiscal year 1951-52, the Institute enrolled 134,451 persons within the continental United States and 17,293 persons overseas.

¹Letter from Lt. Col. J. B. Sweeney, Assistant Director, United States Marine Corps Institute, July 29, 1953.

²Letter from Lora E. McDonald, Educational Advisor, USAF Extension Course Institute, August 10, 1953.

³Letter from Maj. R. C. Bailey, Assistant Adjutant General, Army Field Forces, December 3, 1953.

These figures are for correspondence study only and do not include the class instruction conducted by the Institute in many of the major centers abroad. Neither do these figures include 16,758 enrollments entered for collegiate credit work at colleges and universities under the auspices of the Institute.¹ It is presumed that most of these, but by no means all, are included in the N.U.E.A. report previously mentioned above.

To summarize, then, the armed forces enrolled 493,799 persons in their correspondence study programs in the fiscal year 1951-52.

The other group of agencies offering correspondence study courses is composed of the commercial correspondence schools. In attempting to compile enrollment figures for this group, the greatest difficulties are encountered. In the first place, the commercial nature of the operation makes competing schools reluctant to report enrollments in other than the most general terms. In the second place, while there is an organization of these schools, the National Home Study Council, not more than one-fourth of the private home study schools are members, according to the executive director. It is felt, however, that the institutions maintaining membership in the Council account for eighty to ninety per cent of the enrollments of all the commercial schools, which the executive director tentatively estimates amounts to 350,000 annually.²

On the basis of the information at hand, it is safe to assume that all of the correspondence study agencies in the United States are

¹Letter from Glenn L. McConagha, Director, United States Armed Forces Institute, July 31, 1953.

²Letter from Homer Kempfer, Director, National Home Study Council, August 20, 1953.

enrolling one million persons annually. In all probability this is a minimum figure and the true one lies between it and one and a quarter million. This figure takes on significance when it is compared with the increase in school enrollments of 1,042,000 in 1951-52 over 1950-51¹ or the total college enrollments in September, 1952, which amounted to 2,148,284.² It is certainly apparent that correspondence study has come to be an important educational method; one that is more and more being subjected to scrutiny by trained researchers in education.

The National University Extension Association maintains a standing committee on research as a part of its organization. In addition the permanent Committee on Correspondence Study has a sub-committee on research that has concerned itself primarily with investigations concerning the correspondence study method of instruction. The sub-committee presented an organized group of abstracts of all the research that has been done in correspondence study at the thirty-eighth annual meeting of the Association at East Lansing, Michigan, in 1953. Unfortunately, the Association did not see its way clear to incorporate this material in the published report of the annual meeting. Most of the studies reported were made for Master's theses or Doctor's dissertations with the result that the preponderant amount of the data reported deals strictly with the study of courses carrying academic credit. Only four studies reported are concerned with the proprietary schools and they are limited to an examination of completion rates. The greatest number of

¹The Americana Annual-1954, eds. L. P. Dudley and J. J. Smith (New York: The American Corporation, 1954), p. 206.

²Ibid., p. 209.

the studies to date have concerned themselves with student achievement.¹ The sub-committee is presently concerned with a study of completion rates in which most of the correspondence study departments of the member institutions are participating.

Objectives of the Study

Students enrolling with the General Extension Division of Florida for correspondence study courses frequently ask for suggestions as to the proper methods to employ in this type of learning situation. This request comes most often from the student who has not been engaged in a formal instructional program for a number of years and who feels a real need for direction as he undertakes an entirely new method of learning.

It has been possible to devise an answer to this request by synthesizing from the writings of educational psychologists; from the study suggestions contained in the instructors' introductory statements of not only the courses distributed by the Florida Division, but also of courses prepared and circulated by other extension divisions; and from discussions of this problem with correspondence study students and instructors. The devised answer apparently has been satisfactory because no complaints concerning it have been received. It would be foolhardy, however, to rely on this criterion alone as a sufficient demonstration of the applicability and accuracy of the suggestions.

The primary cause of dissatisfaction with the directions for

¹Some copies of this material may still be obtained from Dr. G. B. Childs, Specialist in Correspondence Study, University Extension Division, University of Nebraska, Lincoln, Nebraska.

study arises from the subjectivity of the process by which they came into being. In defense of the suggestions it may be pointed out that they were based on the best material available. This defense, however, does not alter the fact that a determined effort has not been made to find out whether there is a pattern of study methods that may be employed in the work of a correspondence course that is more likely to lead to a satisfactory completion than some other set of methods that a student might employ. This study was undertaken in an attempt to discover if there were such a pattern of study methods. The effort was encouraged by the report of a study made at the School of General Studies, Cleveland College, Western Reserve University. There a survey was made of ninety-six evening college students who were beyond the usual college age and the results seem to show that adults have poor study habits when judged by the criteria applied to public school and regular college students.¹

The first objective was to find out how enrollees went about complying with the requirements of correspondence course work. With this information at hand, answers to two other questions might be deduced. The first of these was whether completion or non-completion of home study courses could be attributed to the study methods used. The second was whether the study methods used by those who successfully completed courses are consonant with those suggested by educational psychologists.

In addition to study practices there are other factors that can

¹John P. Barden and Jean Hudson, "Some Evidence About How Adults Study," Adult Education Bulletin, XIII (August, 1949), pp. 178-181.

exert an influence in determining course completion. Data concerning some of these are beyond the reach of the investigator of correspondence students in sufficient quantities to make it possible to draw valid conclusions. There are some, however, that can be examined as readily as the study habits and it was determined to bring these into the investigation to help complete the picture of the home study student.

As a result, additional objectives of the study were set up. The first of these was to discover if there was any relation between the purpose for which a course was taken and completion of the course. Another objective was to find out the effect on actual course completion when the student was faced with the necessity to complete by a definite time. A third was to determine whether the amount of prior collegiate experience of an enrollee exerted a demonstrable effect on course completion. Finally, it was desired to ascertain the degree of relationship, if any, between previous correspondence study experience and course completion.

Procedures Employed in the Study

The attempt to analyze the methods employed by students in doing the work required in correspondence courses presents a number of rather specialized problems. In the first place, except under unusual circumstances, it is unlikely that the students themselves will be available for questioning. Rather, they are most likely to be widely scattered over the country, if not the world. As a result, the geographical factor adds to the difficulty of communication with them and, except for the possibility of a relatively few personal interviews, makes reliance on the questionnaire or inventory method almost mandatory. Another

problem related to this is that students seem to move without leaving forwarding addresses more frequently than is anticipated so that it is difficult to contact them through the mail. This has recently become even more of a difficulty since the Post Office has stopped giving directory service.

There is no paucity of material on the subject of study habits, or of suggestions as to how to study, on every educational level from the elementary school through college. In fact, the person interested in this subject will probably find himself with more material than he can conveniently handle. From the standpoint of this study, however, all of this material had one primary weakness. This was the assumption that the student was in regular class attendance while the home study student was not. If then, an investigation was to be made of the study methods of correspondence students, one of the first steps to be undertaken was the development of an inventory that would be applicable to this particular learning situation and that would produce the desired information.

The basic plan for such a questionnaire originated from an experience with Wrenn's Study Habits Inventory which was introduced for illustrative purposes in a class in advanced educational psychology. The idea continued to evolve in an advanced course in educational tests and measurements, but the vast amount of material on the subject and the slight applicability of most of it to a home study situation tended to discourage the development of the inventory. However, the report of a Canadian Council For Educational Research investigation of suggestions for the improvement of study methods in the March, 1949, Phi Delta

Kappan pointed to a possible solution of the problem.¹

In the Canadian study thirty-eight books devoted to the teaching of how to study were analyzed and a list of 517 suggested study habits and skills was compiled. It was found that there were thirty-four suggestions for study mentioned more than twenty times in the thirty-eight books. In his suggestions for effective study H. L. Kingsley has included these thirty-four study tips and suggested some additional ones in the twelve groups which he lists.² Since there is such a great deal of duplication in the materials on the subject and since the Kingsley list appeared to be an adequate summary, it was taken as the basis of an inventory of study methods insofar as the suggestions were applicable to correspondence study. In addition, certain items concerning procedures that are necessarily peculiar to correspondence study were incorporated.

A tentative form of this inventory was prepared and submitted to a random sample of fifty students as they completed correspondence courses with the request that they supply the information asked for and criticize the inventory in general and the items in particular. The students selected were particularly cooperative and from their replies it was possible to refine the items on the inventory so that ambiguities were removed. The final form of the inventory appears as Appendix A of this dissertation.

Morton remarks on the effective working relations that universities have succeeded in establishing with users of certain extension

¹The Phi Delta Kappan, XXX (March, 1949), p. 273.

²Howard L. Kingsley, The Nature and Conditions of Learning (New York: Prentice-Hall, Inc., 1946), pp. 363-365.

services, among them correspondence study.¹ Students enrolled with the Florida Division have been asked from time to time to participate in informational surveys and have always proved most cooperative. They have willingly provided information the dependability of which has been demonstrated by subsequent experience and by interviews. As a consequence, no hesitation was felt at using the survey method in connection with this investigation. To provide an unbiased sample of correspondence study students for the study, all persons who enrolled with the General Extension Division of Florida for college level work during the months of February, March, April, and August of 1953 were taken into consideration.

No doubt, the reader will at once question the rather peculiar selection of months indicated above. This choice was dictated by a plan to make special use of the students who enrolled for the property insurance courses in the study of the effect of declared purposes of enrollment on completions and by a legal deadline that had been established for the completion of these courses. This whole situation will be discussed in detail when the matter of purposes and deadlines is discussed.

During the months mentioned, 666 enrollments in college level courses were entered. A number of these came from people who enrolled for two courses during the months. Since it was not desired to have two sets of replies from any individual, the duplications were screened as the list was being compiled. This screening produced the names and addresses of 581 individuals who might be brought into the study.

¹Morton, op. cit., p. 93.

Not all enrollees in correspondence courses start work in the courses. In the definitions of correspondence study terms officially approved by the N.U.E.A. the student who enrolls but fails to submit an assignment in his course is termed a "cancellation."¹ The General Extension Division of Florida has recently participated in an N.U.E.A. study of completion rates based on all enrollments entered for home study courses during the fiscal year 1950-1951. In that period 22.0 per cent of the enrollments entered fell into the "cancellation" category. Of the 581 enrollments that were under consideration for the present study, 140 were "cancellations." This represented 24.0 per cent of the enrollments and shows a slightly higher percentage than that found in the full year study mentioned above.

Table 1 shows the distribution of enrollments by subject area. It is evident that there was a good representation of all of the course work available in the group selected for study. After the names of the 140 persons who cancelled were removed from the list of possible contributors, a copy of the inventory was sent to each of the remaining 441 enrollees.

Within forty-five days after the first mailing, 187 completed inventories and twenty-five undeliverable copies representing 48.1 per cent of this material had been returned. In order to promote a larger return a follow-up letter was sent to those students who had not responded. Within a fifteen day period this letter added thirty-seven

¹National University Extension Association, Proceedings of Annual Meetings (Bloomington, Indiana: Indiana University Press, 1951), XXXIV, p. 56.

TABLE 1

ENROLLMENTS BY SUBJECT AREA ENTERED WITH THE GENERAL EXTENSION
DIVISION OF FLORIDA DURING THE MONTHS OF FEBRUARY, MARCH,
APRIL, AND AUGUST OF 1953 AFTER REMOVAL OF DUPLICATIONS

Subject Area	Enroll- ments	Cancelled	Inventory Sent	Undeli- verable	Returned	Course	
						Complete	Incomplete
Agriculture	30	11	19	4	7	3	4
Art History & Appreciation	3	1	2	0	2	1	1
Business Admin. & Economics	139	38	101	8	58	35	23
Education	99	18	81	5	44	36	8
English	96	13	83	3	56	40	16
Engineering	20	5	15	0	8	4	4
Foreign Languages	17	4	13	2	2	1	1
Geography	23	7	16	1	11	8	3
Home Economics	13	6	7	1	2	1	1
History	26	9	17	0	12	8	4
Music History	10	0	10	1	2	1	1
Mathematics	51	15	36	3	20	8	12
Meteorology & Physics	5	1	4	1	3	2	1
Psychology	36	9	27	1	17	15	2
Sociology & Social Work	13	3	10	1	5	5	0
Totals	581	140	441	31	249	168	81

completed inventories to those at hand. During this time six more undeliverable items had been returned. Thus, at the end of sixty days 54.6 per cent of the original mailing was returned. A second letter produced an additional twenty-five completed inventories giving a total of 249 sets of usable data and thirty-one undeliverable items representing 63.4 per cent of the material sent out. The usable data came from 168 students who had completed their courses and from eighty-one who had not. This represents a completion rate of 67.9 per cent for this group and is somewhat lower than the completion rate of 70.8 per cent for the year 1950-1951 obtained in the N.U.E.A. completion study mentioned above.

As far as this present investigation is concerned, it was an advantage to have a larger than usual ratio of non-completions. This situation provided a larger number of unsuccessful students whose methods, motives, and previous educational experience could be compared with the successful group. To further increase the size of this unsuccessful group, the replies of those students whose final course grades were "D" or "E" were combined with the information received from those who failed to complete their course work. It was felt that this combination was justified because the grade of "E" represented a failure for which no college credit could be obtained and the grade of "D" is not generally acceptable on transfer.

In Chapter II the information concerning methods of study employed by the respondents is presented. The data are tabulated and analyzed in detail for each of the twenty-five items in the inventory. The probable contribution of each to course completion is assayed. Chapter III presents a consideration of the probable effects of purpose, deadline,

previous collegiate work, and prior experience with home study on successful course completion.

CHAPTER II

THE INVENTORY

Time and Place of Study

It must be borne in mind that the typical correspondence study student is an adult employed full-time at a vocation or profession. Morton found that the median age of the correspondence study student was approximately twenty-five years¹ and that three-fourths of them were holders of full-time jobs.² These facts delineate a student who has many outside demands on his time. For this person efficient use of time available for study is important if his goal is to be reached. It is, consequently, important to know the practices followed by home study students in assigning time for work on their courses.

Table 2 shows how the replies to inventory Item One were distributed by the successful and unsuccessful enrollees through the six options available for their selection. It will be noted that 108 of the successful students scheduled a regular time for study. Of these, sixty-eight set up a daily study period; twenty-eight studied three times a week; five studied two times a week; three studied one time a week; and four scheduled regular study periods at more than weekly

¹Morton, op. cit., p. 88.

²Ibid., p. 91

intervals. Only fifty-five of the group left their studying to hazard.

TABLE 2
REPLIES CONCERNING REGULAR STUDY PERIODS
(Inventory Item One)

Item	Successful %		Unsuccessful %	
I scheduled a regular time for study				
(1) daily	68	41.7	20	23.8
(2) three times a week	28	17.1	6	7.2
(3) two times a week	5	3.0	4	4.8
(4) weekly	3	2.1	7	8.3
(5) at longer intervals	4	2.4	0	
(6) no scheduled time	55	33.7	47	55.9

Of the eighty-four respondents who were not successful in their work, only thirty-seven scheduled regular study times. Of these, twenty worked on their course daily; six scheduled three periods a week; four studied two times a week; and seven one time a week. However, forty-seven of this group left their study periods to chance.

If these data are subjected to the Chi-square test for statistical significance, it will be found that failure to schedule a definite time for study affects course completion at the .01 level of significance.

Replies to Item Two point up a wide variation in the length of individual study periods employed. Only a few indicated that a one-hour period was best for them--twelve successful and eight unsuccessful students having selected this option. A two-hour period was found best

by seventy-six successful and thirty-seven unsuccessful respondents. This was the most popular option although the three-hour period pressed it closely with fifty-two successful and twenty-five unsuccessful students indicating that a three-hour period was best for them. Thirteen successful and eight unsuccessful people used a study period of four hours while a total of fifteen, ten successful and five unsuccessful, indicated that they employed a study period of more than four hours.

TABLE 3
REPLIES CONCERNING LENGTH OF STUDY PERIOD
(Inventory Item Two)

Item	Successful	%	Unsuccessful	%
I found the best study period to be one whose duration was				
(1) one hour	12	7.4	8	9.6
(2) two hours	76	46.6	37	44.5
(3) three hours	52	31.9	25	30.1
(4) four hours	13	8.0	8	9.6
(5) more than four hours	10	6.1	5	6.1

It will be noted that the replies to this item are consistent on the part of both the successful and unsuccessful students. The length of the study period does not appear to make a statistically significant contribution to success in completing a correspondence course.

It has been amply demonstrated that short periods of rest or relaxation contribute to the efficiency of all work--study is no exception to this. Item Three was included in the inventory to determine the

practices of correspondence students in this regard. The replies show that sixty-one of the successful students stopped one time, forty-two stopped two times, twelve stopped three times, and eighteen stopped four or more times for this purpose during their study period. Thirty-three of the successful respondents, however, kept working without a halt for relaxation. Of the unsuccessful, sixteen stopped once; fourteen stopped twice; thirteen interrupted their work three times; and nine took time out four or more times. On the other hand, thirty of those who were not successful did not interrupt their work at all.

TABLE 4
REPLIES CONCERNING STOPPING FOR RELAXATION
(Inventory Item Three)

Item	Successful	%	Unsuccessful	%
During my study period I stopped for relaxation				
(1) one time	61	36.8	16	19.5
(2) two times	42	25.3	14	17.1
(3) three times	12	7.2	13	15.8
(4) four or more times	9	10.8	18	10.9
(5) not at all	33	19.9	30	36.6

When these data were subjected to the Chi-square test it was found that failure to stop for relaxation at all during the study period was related to failure to complete the course at the .01 level of significance.

TABLE 5
 REPLIES CONCERNING TIME OF STUDY
 (Inventory Item Four)

Item	Successful	%	Unsuccessful	%
I found the best time for study in my case to be				
(1) before breakfast	7	4.1	1	1.2
(2) between breakfast and lunch	35	20.1	8	9.7
(3) during the afternoon	46	26.4	14	17.0
(4) after my evening meal	86	49.4	59	71.9

Item Four was included in the inventory for the sole purpose of getting a better picture of when correspondence students actually study. The results were largely as anticipated since it is logical to suppose that the typical student would only find time to study after his evening meal. This is indicated in the replies of the eighty-six successful and fifty-nine unsuccessful persons who said that they studied at that time. It was somewhat surprising to find eight persons who did their studying before breakfast. Forty-three replied that they studied in the mornings while sixty found the afternoon to be the most convenient time for them. The Chi-square test shows a significant relation at the .01 level of confidence between success and studying at a time other than in the evening for these respondents.

The replies to Item Five present some details that can be nothing more than suggestive to the correspondence study administrator and those charged with the preparation of correspondence courses. It was included

to find out if there was a possibility to point up the relationship between time required for reading and writing in carrying on a correspondence course. While it indicates that for this particular group much more time was spent in reading than writing, that is the only valid conclusion that can be derived.

TABLE 6
REPLIES CONCERNING TIME INVOLVED IN PREPARING ASSIGNMENTS
(Inventory Item Five)

Item	Successful	%	Unsuccessful	%
In preparing an assignment I found that the reading and writing involved took				
(1) about the same amount of time	28	17.4	13	16.1
(2) twice as much time for the reading as for the writing	41	25.5	19	23.5
(3) three times as much time for the reading as for the writing	31	19.2	17	20.9
(4) twice as much time for the writing as for the reading	36	22.4	12	14.8
(5) three times as much time for the writing as for the reading	25	15.5	20	24.7

The data are based on experiences with courses involving the most divergent requirements. For example, history courses require one hundred pages of parallel reading for each assignment; some English courses require extensive reference reading, while others require practically none, but emphasize composition; at the other extreme are the mathematics courses requiring little reading but much writing. At the same time

there are not enough replies in any particular subject area or areas to permit valid comparisons, although it is suggested that this might be a fruitful field of exploration for the correspondence study researcher.

TABLE 7
REPLIES CONCERNING PLACE OF STUDY
(Inventory Item Six)

Item	Successful %		Unsuccessful %	
I prepared my assignments				
(1) at home	150	81.9	67	73.6
(2) at school	6	3.3	1	1.1
(3) where I work	12	6.6	17	18.7
(4) in hotels	0		0	
(5) in a place assigned	1	0.6	2	2.2
(6) in the library	14	7.6	4	4.4

Item Six is concerned with where correspondence course work is done. As in the case of the replies to Item Four, it is not surprising to find that most of the students did their studying at home. It is evident, however, from the high totals of replies that many of the respondents worked on their courses in more than one place. The efficiency of this method might be subject to questioning because the transportation of texts and materials between places of study is involved. The small number of responses indicating that course assignments were prepared at school is something of a surprise when the number of people who were taking the work for teacher certification is taken into consideration. This group did not let their course work interfere with their school

duties. Thirty-nine respondents said that they prepared their assignments where they worked. This suggests the possibility that the noon hour was employed in study. There is no evidence to support this observation, but it appears as an interesting speculation. That the place of employment was not a particularly good place to study seems indicated by the fact that only twelve of the group were successful while seventeen were not able to complete their courses.

Option (5) in this item was included to find out if our armed service enrollees had special facilities available to them. If this was the case, not many of them used the facilities, or the option was not worded properly, for only three replies stated that special facilities had been used.

TABLE 8
REPLIES CONCERNING PHYSICAL FACILITIES
(Inventory Item Seven)

Item	Successful	%	Unsuccessful	%
I usually did the reading and writing for my assignments				
(1) in an easy chair	21	11.6	9	10.2
(2) at a desk or table	137	75.7	64	72.7
(3) on a sofa or lounge	11	6.1	12	13.6
(4) elsewhere	12	6.6	3	3.4

Again in the case of Item Seven the indications that this group of students knew how to study are strong. It will be noticed that 201 of them, successful and unsuccessful alike, did their studying at a desk

or table. The candor of a number of the respondents was refreshing. They unhesitatingly confessed that they did the reading required in an easy chair and moved to desk or table when writing was involved. Fourteen of the thirty who said they did their work in an easy chair belong to this group. The group of twenty-three who unabashedly admitted they did their work on a sofa or lounge serves to lend credence to all of the replies. This group was not giving the replies they thought would be most likely to accord best with theory. They told what they did.

TABLE 9
REPLIES CONCERNING FREEDOM FROM DISTURBANCE
(Inventory Item Eight)

Item	Successful %		Unsuccessful %	
In the place where I did my studying I was free from disturbances				
(1) hardly ever	11	6.7	11	12.9
(2) one-fourth of the time	10	6.1	11	12.9
(3) one-half the time	23	14.1	20	23.5
(4) three-fourths of the time	32	19.7	13	15.3
(5) nearly all of the time	87	53.4	30	35.4

Recalling that the correspondence study student is typically a full-time employed adult attempting to study in a home environment, it is easy to imagine that he would be subjected to a multiplicity of interruptions. He has many social and vocational obligations which he cannot completely control that would impinge on his study periods. The importance of being free from outside interference is illustrated by the

distribution of the replies to Item Eight. Table 9 shows that eleven of the successful students were hardly ever free from interruptions in their work. In addition ten were free from disturbance only about one-fourth of the time. Twenty-three indicated that they were able to devote about half of their time to study without interruption. Thirty-two were undisturbed three-fourths of the time while eighty-seven had their study situation under such control that they were scarcely ever disturbed.

Of the unsuccessful students eleven were hardly ever free from interruption while an additional eleven were only free about one-fourth of the time. Twenty were undisturbed only half the time and thirteen about three-fourths of the time. Thirty respondents said that they were largely free from disturbance. Nevertheless, when these data were grouped with regard to "some disturbance" as opposed to "no disturbance" and the Chi-square test applied, it was found that freedom from disturbance was related to course completion at the .01 level of significance.

Text and Reference Reading

As a preface to the consideration of the replies on Item Nine some discussion of the organization of a typical correspondence study assignment appears to be pertinent. Ordinarily an assignment starts by giving the student directions to read the necessary material in the text. If reference work is included in the assignment, it is cited immediately following. The next portion of the assignment consists of the instructor's comments. These are somewhat similar to the class lecture and are used by the instructor to orient the student to the material of the assignment, to show the relation of this assignment to those which have preceded and those which will follow, to direct special

attention to portions of the material that classroom experience indicates will be particularly difficult, and to present alternate solutions to problems raised which may not be included in the assigned text and reference materials. A knowledge of student practices in making use of these comments can be of help to those charged with the preparation of course assignments.

For instance, an instructor may use an entirely different approach to the writing of his comments on an assignment, if he can be reasonably certain that the student will read the comments before getting into the text and reference materials.

TABLE 10

REPLIES CONCERNING READING INSTRUCTOR'S COMMENTS
(Inventory Item Nine)

Item	Successful	%	Unsuccessful	%
In beginning the preparation of an assignment, I read the instructor's comments				
(1) first	153	92.1	73	87.9
(2) after the assigned reading in the text	8	4.8	6	7.3
(3) after text and reference reading	5	3.1	4	4.8

The replies to Item Nine indicate that it is the practice of nearly the entire group to read the instructor's comment as the first step in the actual preparation of an assignment. This was the procedure followed by 153 of the successful and seventy-three of the unsuccessful. The remaining members of the two groups that followed other methods were

so few as to be negligible.

TABLE 11
REPLIES CONCERNING TEXT READINGS
(Inventory Item Ten)

Item	Successful %		Unsuccessful %	
I read the assigned reading in the text				
(1) one time	65	37.6	30	34.9
(2) two times	88	50.9	44	51.2
(3) three times	18	10.4	8	9.3
(4) more than three times	2	1.1	4	4.6

Item Ten gives an indication of the general practice of students with respect to textbook reading. While the data did not tend to differentiate between the successful and unsuccessful on this item, it is, nevertheless, interesting to see that sixty-five of the successful and thirty of the unsuccessful felt that they were ready to undertake the written work of an assignment after only one reading of the text. Eighty-eight of the successful and forty-four of the unsuccessful felt that two readings of the text were necessary. Only twenty of the successful and twelve of the unsuccessful felt that more than two readings were needed for any one assignment.

A student is apt to work more efficiently on an assignment if he understands the purpose of that assignment at the outset. It was the aim of Item Eleven to determine whether an effort was made to reach some conclusion regarding the purpose of the assignment as the first

step in the preparation. The replies as shown in Table 12 indicate that this was the first thing that most of the students did. The group comprising those who always attempted to determine the purpose of the assignment at the outset was made up of 119 of the successful and fifty-seven of the unsuccessful. Twenty-one of the successful made the attempt in more than one-half of the assignments, sixteen tried about one-fourth of the time, and five said that they never bothered about the purpose. This latter group was probably only concerned with getting the assignments done.

TABLE 12
REPLIES CONCERNING APPROACH TO ASSIGNMENT
(Inventory Item Eleven)

Item	Successful	%	Unsuccessful	%
I tried to determine the purpose of the assignment as the first step				
(1) in less than half the assignments	16	9.9	7	8.3
(2) in more than half the assignments	21	13.0	13	15.5
(3) always	119	73.9	57	67.9
(4) never	5	3.1	7	8.3

Of the respondents to Item Eleven that did not successfully complete their work, thirteen tried to find the purpose of the assignments in one-half of the instances; seven in one-fourth of the cases; and seven did not try to determine the purpose of the assignment at all. These data were subjected to the Chi-square test trying to ascertain if some attempt to determine purpose contributed to the successful conclusion

of a course but the results were not statistically significant.

One of the most frequently recommended methods of study is that which calls for the quick scanning of the textual material to be covered. This is to give the student an overview, to introduce him to the points that are to be raised, and to generally acquaint him with the material to be covered. The replies to Item Twelve indicate that this practice was largely followed by the group under consideration.

TABLE 13

REPLIES CONCERNING PRELIMINARY SURVEY OF TEXT ASSIGNMENT
(Inventory Item Twelve)

Item	Successful %		Unsuccessful %	
I made a preliminary survey of the assigned reading in the text before beginning intensive study of the material to be covered				
(1) never	10	6.2	8	9.8
(2) for less than half the assignments	13	8.1	8	9.8
(3) for more than half the assignments	32	19.9	15	18.3
(4) always	106	65.8	51	62.1

That there were so many who indicated that they did this all the time need not be surprising if the large number of people with more than thirty hours of college experience in this group are recalled. That this procedure is not absolutely necessary is illustrated by the fact that nearly one-third of the successful group did not always make this preliminary survey of the text. Thirty-two replied that they only did it for more than one-half the assignments, thirteen said they did it

for less than one-half the assignments, and ten said that they did not follow this practice at all.

The ratios in the unsuccessful group were about the same. Fifteen said they scanned in more than one-half of the assignments, eight in less than one-half the assignments, and eight said they did not make the preliminary survey at all. When subjected to the Chi-square test these data failed to show a statistically significant relationship between always making a preliminary survey of the text material and successful completion of the course.

Items Thirteen and Fourteen are procedural items and concern themselves with the handling of reference reading in connection with those courses and assignments where such parallel reading is required. Reference has already been made to the widely varying requirements of outside reading with which these students were faced. It was felt, however, that some useful information might be derived if the practices of students with regard to reading and taking notes on reference material were known.

From the replies to Item Thirteen we learn that fifty of the students who carried their work to a successful conclusion read the reference material after all of the text material had been covered, thirty-eight read the parallel material and the text topic by topic, and thirty-one did the reference reading between the readings of the text material. Quite obviously this latter group was made up of some of those who reported in their reply to Item Ten that they read the material in the text two times.

TABLE 14
 REPLIES CONCERNING USE OF REFERENCE READINGS
 (Inventory Item Thirteen)

Item	Successful	%	Unsuccessful	%
I related the reference reading to the material in the text by				
(1) reading the reference material after all of the text material	50	30.9	19	24.4
(2) reading both reference and text material topic by topic	38	23.8	17	21.8
(3) reading reference material between readings of the text material	31	19.4	13	16.7
(4) I did no reference reading	43	25.9	29	37.1

The respondents who indicated that they read reference and text topic by topic formed a surprisingly large group. This option was included in the inventory at the suggestion of a former student who pointed it out as a possibility but it was not anticipated that response would be large because it is a somewhat unorthodox method of doing parallel reading. Twenty-five of this group of thirty-eight were one-time readers of the text material according to their replies to Item Ten. The remaining thirteen were found among those who indicated that they read the material in the text two times in their replies to that item.

The unsuccessful respondents to Item Thirteen indicated that nineteen of them read the reference material after all of the text material, seventeen reported reading text and reference material in parallel, and thirteen said they read the reference material between

readings of the text. It was not anticipated that the replies to this item would have statistical significance as far as successful or unsuccessful work in a course was concerned.

Closely related to the problem of when to do reference reading is that of how to incorporate the results of such reading in the written portions of a correspondence study assignment. In many cases this problem is taken care of by the general course requirement that the student include a separate summary of all parallel reading. When this is not the case the conscientious student wants some means of indicating this reading to the instructor and copying from the books is not a satisfactory answer. Frequently, too, the student finds himself in a locality where library facilities are not specialized enough for his purpose and he must then rely on the extension library to supply his needs. This being true, he often finds that a book to which he would like to refer and which he had used in connection with some previous assignment has been returned to the library and is not readily available.

The correspondence student, then, finds himself in a more aggravating situation with respect to reference reading than does the student in residence. However, the answer for the correspondence student is the same as that for the resident student--take notes. Item Fourteen was included in the survey to see to what extent correspondence students did take notes on reference reading. The replies indicate that the practice is one that is widely followed. Almost one-third, fifty-two, of the successful students replied that they took notes always; thirty said that they took notes for more than one-half the assignments; eighteen took notes for less than one-half the assignments; and only twenty-three

indicated that they did not find notetaking to be necessary.

TABLE 15

REPLIES CONCERNING NOTETAKING ON REFERENCE READING
(Inventory Item Fourteen)

Item	Successful %		Unsuccessful %	
I found it helpful to take notes on the reference reading				
(1) always	52	33.3	23	31.7
(2) for more than half the assignments	30	19.3	11	15.1
(3) for less than half the assignments	18	11.6	11	15.1
(4) not at all	23	14.7	10	13.7
(5) no reference reading assigned	33	21.1	18	24.6

Of the unsuccessful respondents to Item Fourteen the proportions were quite similar. Nearly one-third, twenty-three, indicated that they took notes all of the time; eleven replied that they took notes for more than one-half the assignments; eleven said that they took notes for less than one-half the assignments; and ten indicated that they did not take notes on reference work at all.

To complete the discussion of the replies to Items Thirteen and Fourteen it is necessary to explain what appears to be an obvious discrepancy in the responses to option (4) in Item Thirteen and option (5) of Item Fourteen. It will be noted that forty-three successful and twenty-nine unsuccessful students indicated in their replies to Item Thirteen that they did not do any reference reading. However, only

thirty-three successful and eighteen unsuccessful respondents indicated in Item Fourteen that no reference reading was assigned. The question, then, is what became of the other respondents to option (4) of Item Thirteen.

Of the forty-three successful respondents who indicated in Item Thirteen that they did not do any reference reading, twenty-seven replied in Item Fourteen that no reference reading was required; seven said that they made no notes on reference reading at all; and six made no response to Item Fourteen. Similarly, of the twenty-nine unsuccessful respondents who indicated in Item Thirteen that they did no reference reading, sixteen indicated in reply to Item Fourteen that no reference reading was required; five said they took no notes at all on reference reading; and eight did not respond to the item. The two additional replies indicating no reference reading was required in Item Fourteen came from students who had not replied to Item Thirteen.

Retention and Recall

Frequent stops while studying to recall important points in the materials presented by the text is a study method highly recommended by the majority of the writers on the subject. The purpose is to fix these main points so that they may be recalled. The practice of correspondence students in employing this method of study is reported in Item Fifteen. The responses of those who carried their work to successful completion show that thirty-seven did this invariably. Ninety-four stated that they frequently used this procedure. Only nineteen resorted to it infrequently, while twelve reported that they did not stop

for recall at all.

TABLE 16
REPLIES CONCERNING PRACTICING RECALL
(Inventory Item Fifteen)

Item	Successful	%	Unsuccessful	%
I stopped at the end of paragraphs or sections to attempt to recall the main points presented				
(1) always	37	22.8	18	21.9
(2) frequently	94	58.7	46	56.1
(3) infrequently	19	11.1	17	20.7
(4) not at all	12	7.4	1	1.3

Eighteen of the unsuccessful group indicated that they, too, stopped at the end of paragraphs or sections to check up on important points as a regular practice. Forty-six reported that they frequently followed this procedure. Seventeen said that they did it only infrequently and one reported that the practice was not employed at all. The data as here presented failed to show a statistically significant relation between the use of this method and success or non-success in course work when subjected to the Chi-square test.

Theoretically, Item Sixteen should serve as an indication of the efficacy of the methods followed and reported on in Items Ten through Fifteen. As an illustration, assume the case of the successful student who followed the procedures of the majority of the group as reported in these items. This student read the material assigned in the text two times before attempting to answer the questions in the written assignment.

He always tried to find the purpose of the assignment as the first step in his study. He always made a preliminary survey of the assigned reading in the text before beginning intensive study of it. He always made notes on the reference reading which he either read topic by topic with the text or after his text reading was completed. He frequently stopped at the end of paragraphs or sections of the text material to practice recall.

It is not illogical to assume that having followed this over-all pattern, he would find it rather easy to write out the answers to questions in the assignment without recourse to the text or reference materials. If this assumption is made, the distribution of the responses to Item Sixteen shown in Table 17 will be a distinct shock.

TABLE 17
REPLIES CONCERNING NEED FOR REFERENCES
DURING LESSON PREPARATION
(Inventory Item Sixteen)

Item	Successful	%	Unsuccessful	%
In writing answers to questions I found it necessary to refer to the text or reference materials				
(1) not at all	4	2.3	1	1.3
(2) only a few times	40	24.7	15	18.5
(3) quite often	118	72.8	65	80.2

The table shows that 118 of the successful students found it necessary to refer to the text or other materials quite frequently when writing up the answers to assignment questions. While forty indicated

that they found such reference necessary only a few times, only four said that they were able to ignore text and reference materials completely while writing. The experience reported by the unsuccessful students was quite similar. Sixty-five reported that frequent reference was necessary, while only fifteen resorted to the text or other material just a few times and one not at all.

Taken as strictly objective measures these results tend to bring under question the validity of the replies to Items Ten through Fifteen. The point that has been overlooked here is that the respondents were not being objective at the time they did the work involved and upon which they reported at a later date. It must be remembered that for many students the instructor is an unknown whose opinion of the student will be formulated by the quality of the work presented by the student. Consequently, the students are not particularly willing to trust to the efficacy of the measures employed and reported on in Items Ten through Fifteen in the production of their written assignments. Instead, they prefer to make frequent checks as they go along in order that their instructors do not gain a bad impression of them from their written work. This point has been verified in discussing this matter with a number of successful students. There is a further consideration that is also brought out by the students in talking about this point. Many of them planned to use the graded assignments as the basis of their review for the final examination and foresaw an added advantage in having the assignment as nearly right as possible on its first submission.

To the resident student the making of an outline of material covered in a course is one of the standard procedures of college work.

Its advantages are many and so well known that they need not be dealt with here. It is doubtful that the preparation of an outline of the material covered would have the same advantage to the correspondence student who is generally required to submit much more detailed information about the points in the course in the written portion of every assignment. Nevertheless, it seemed well to find out to what extent this practice was followed in correspondence work and Item Seventeen was included for this purpose.

TABLE 18
REPLIES CONCERNING MAKING OF OUTLINES
(Inventory Item Seventeen)

Item	Successful		%	Unsuccessful		%
I made an outline of the material covered in the assignment						
(1) for every assignment	24	14.9	19	23.2		
(2) for three-fourths of the assignments	16	9.9	4	4.8		
(3) for one-half of the assignments	25	15.5	4	4.8		
(4) for one-fourth of the assignments	17	10.6	11	13.5		
(5) for none of the assignments	79	49.1	44	53.7		

The pattern of the responses is about what was expected although more students reported the preparation of outlines than had been anticipated. Of those who successfully completed their work, twenty-four made outlines for every assignment; sixteen made outlines for three-fourths of the assignments; twenty-five made outlines for one-half of the

assignments; seventeen made outlines for one-fourth of the assignments. Seventy-nine did not find outlines necessary. The replies of the unsuccessful group follow the same pattern. Nineteen outlined each assignment, four made outlines for three-fourths of them, four outlined one-half of the assignments, eleven outlined one-fourth, and forty-four did not prepare any outlines. These data failed to produce any evidence that outlining or failure to outline made a statistically significant contribution to success or failure in the course.

TABLE 19
REPLIES CONCERNING SUBSTITUTION
OF ORIGINAL ILLUSTRATIONS
(Inventory Item Eighteen)

Item	Successful	%	Unsuccessful	%
I sought for original illustrations				
(1) always	13	8.1	5	6.3
(2) frequently	75	46.6	31	39.2
(3) infrequently	53	32.9	18	22.8
(4) never	20	12.4	25	31.7

The habit of substituting one's own illustrations for those offered by the text is generally conceded to be one to cultivate in any type of study. It was, therefore, desirable to find out to what extent the students of correspondence courses employed this practice. The responses to Item Eighteen are indicative of the procedure followed by those participating in this survey. The replies indicate that this method was widely employed by both the successful and the unsuccessful

students to a considerable degree. Thirteen of the successful and five of the unsuccessful indicate that they followed this practice all of the time. Seventy-five of the group that completed their work successfully and thirty-one of the opposite group employed this device frequently. At the same time, fifty-three of the successful and eighteen of the unsuccessful indicated that they did not follow this method very often, while twenty of the former group and twenty-five of the latter did not make any attempt to substitute their own illustrations for those of the text.

It might be supposed that students in mathematics, engineering, and accounting courses would probably be least likely to employ this device with their study. Within this group, however, those who followed the practice infrequently or not at all were distributed about equally through all of the subject areas. When the data presented were subjected to the Chi-square test no statistical significance between the use of this method and course completion could be demonstrated.

Another method employed by good students in their study is to relate the materials in the course they are studying to what they have learned through previous study and experience. The practice of correspondence students in this respect is shown in their replies to Items Nineteen and Twenty. Item Nineteen concerns itself with the materials of the course alone. From the replies it is evident that the great majority of both the successful and the unsuccessful students followed this procedure as often as possible. Of the successful group, 126 employed it as often as possible; twenty-four used it most of the time; ten only occasionally; and only two failed to use it at all. Of the

unsuccessful group, sixty-two attempted to relate the materials in the course to what they had previously learned; ten did it most of the time; ten only occasionally; and only one did not try at all.

TABLE 20
REPLIES CONCERNING RELATING NEW MATERIAL
TO PREVIOUS STUDY
(Inventory Item Nineteen)

Item	Successful		%	Unsuccessful		%
I attempted to relate the materials of this course to what I had previously learned						
(1) as often as possible	126	77.7	62	74.7		
(2) most of the time	24	14.8	10	12.0		
(3) only occasionally	10	6.1	10	12.0		
(4) not at all	2	1.4	1	1.3		

From the replies to Item Twenty it is apparent that nine of the successful group did not try at all to evaluate the statements made in their course by what had been learned elsewhere, six tried only infrequently, 104 followed this practice frequently, and forty-three did it all of the time. Similarly, only three of the unsuccessful students did not make this attempt at all; nine only infrequently; fifty did it frequently; and twenty reported doing it always. There is, however, no statistically significant relation between the use of this method frequently or not at all and success in course completion as far as the data here presented are concerned.

TABLE 21
 REPLIES CONCERNING EVALUATION OF COURSE STATEMENTS
 (Inventory Item Twenty)

Item	Successful	%	Unsuccessful	%
I used what I had learned elsewhere to evaluate the statements made in this course				
(1) not at all	9	5.5	3	3.8
(2) infrequently	6	3.8	9	10.9
(3) frequently	104	64.2	50	60.9
(4) always	43	26.5	20	24.4

It would seem that the ability of a student to find practical applications of the principles presented in a course would have a definite bearing on whether the student carried the course to a successful conclusion. To determine if this was the case, Item Twenty-one was incorporated in the inventory.

The replies tabulated indicate that twenty-four of the successful group were always able to find such practical applications, 123 of this group frequently found such applications, while only thirteen found them infrequently, and two not at all. Of those who did not carry their work to successful completion, twelve found practical application always; forty-eight, frequently; sixteen, infrequently; and four not at all. The data shows a statistically significant relation between success and finding such applications at the .01 level of confidence. The fact that fifteen students completed their work in a creditable manner without being able to find many practical applications of the

principles involved is a testimony to their perseverance.

TABLE 22
REPLIES CONCERNING FINDING APPLICATIONS
OF PRINCIPLES PRESENTED
(Inventory Item Twenty-one)

Item	Successful %		Unsuccessful %	
I was able to find practical applications of the principles presented				
(1) always	24	14.8	12	15.0
(2) frequently	123	75.9	48	60.0
(3) infrequently	13	8.0	16	20.0
(4) not at all	2	1.3	4	5.0

The use of the dictionary while studying is an important study method, but there was another equally valid reason for the inclusion of Item Twenty-two. This was to determine to what extent the adult student found it necessary to look up terms which were unfamiliar.

TABLE 23
REPLIES CONCERNING USE OF DICTIONARY
(Inventory Item Twenty-two)

Item	Successful %		Unsuccessful %	
I found a dictionary necessary				
(1) frequently	76	46.6	37	45.1
(2) infrequently	60	36.8	29	35.4
(3) not at all	27	16.6	16	19.5

The distribution of the replies indicates that these students

found it necessary to have recourse to the dictionary quite frequently, with this necessity being rather equally divided between the successful and the unsuccessful groups. Of the former, seventy-six indicated that frequent recourse to the dictionary was necessary; sixty used it only infrequently; and twenty-seven reported that they did not use the dictionary at all. Thirty-seven of the unsuccessful made frequent reference to the dictionary, twenty-nine used it infrequently, and sixteen not at all.

Special Problems and Final Examination

The student in the classroom has in the instructor an immediate source of solutions to problems and answers to questions that arise in connection with course work that is not available to the correspondence student. In the latter's case a solution must be attempted regardless of whether principles are understood or blanks appear on the written recitation which may result in lowering the mark on that assignment or in making it necessary to do the assignment over. It was hoped that the replies to Item Twenty-three would indicate some completely sure method that had been developed by the successful students in dealing with the problem of what to do when a question could not be answered or a problem could not be solved. The replies did not show that any method of dealing with this situation was statistically significant although they revealed that 100 of the successful group followed the practice of asking a question to show where the difficulty lay and sending in what had been accomplished. Twenty-six of this same group simply tried to ask a question that would let the instructor know where they

were having difficulty. Three of the group were frank to admit that they just left a blank expecting the instructor to write in the answer and twelve said they simply skipped the question.

TABLE 24
REPLIES CONCERNING DIFFICULTIES IN PROBLEM SOLVING
(Inventory Item Twenty-three)

Item	Successful	%	Unsuccessful	%
When I found a question or problem that I could not solve I				
(1) skipped it and went on	12	8.5	8	11.1
(2) left a blank expecting the instructor to write in the correct answer	3	2.2	4	5.6
(3) tried to ask a question showing where I was having difficulty	26	18.4	14	19.4
(4) asked a question and sent in whatever I had been able to accomplish	100	70.9	46	63.9

Forty-six of those who were unsuccessful in their work replied that they, too, tried to ask a question indicating where the trouble was and sent in whatever they had been able to accomplish. Fourteen submitted the question, four left a blank in which they expected the instructor to place the answer, and eight simply skipped the question. In the case of these eight unsuccessful enrollees and the twelve successful students who followed the same practice one wonders whether they expected the instructor to fail to notice the omission.

In correspondence work the graded assignment is the connecting

link between the student and the instructor. The comments of the instructor indicate where the student has gone astray, where he needs to make a greater effort, or what steps he needs to take to get a better grasp of the materials than his written work originally demonstrated. Consequently, it was important to find out how students used the assignments as they were returned.

TABLE 25

REPLIES CONCERNING REACTION TO GRADED ASSIGNMENTS
(Inventory Item Twenty-four)

Item	Successful %		Unsuccessful %	
When I received a graded assignment, if it did not require resubmission,				
(1) I looked it over and put it with previous assignments	49	30.8	30	38.9
(2) searched for relations between it and the assignment on which I was working	17	10.8	5	6.6
(3) looked up suggestions made by the instructor	71	44.6	31	40.2
(4) followed instructor's suggestions and wrote about them later	22	13.8	11	14.3

The replies to Item Twenty-four indicate that when an assignment not requiring resubmission was returned to forty-nine of the successful students they simply looked it over and put it with others that had been returned. Of this same group, seventeen replied that they tried to find relationships between the materials in the assignment and the assignment on which they were then working. Seventy-one who were successful reported

that they simply looked up any suggestions of the instructor, while twenty-two said that they not only looked up these suggestions but wrote about them on later assignments.

Of the group that did not complete their work successfully, thirty reported that they simply looked over the returned assignment and placed it with the others. Only five looked for relationships between the returned assignment and the one on which they were working. Thirty-one looked up the suggestions made by the instructor and eleven not only looked up the suggestions but wrote about them on a later assignment.

The last item on the inventory was included to see what appeared to be the best practice for preparing for a final examination in a correspondence study course. From the replies to Item Twenty-five it is evident that fifty-two of the successful students used the questions on the separate assignments as a study guide for this purpose. Eighty-nine of these students took the graded assignments as a guide for their preparation for the final examination. Fifteen stated that they found it simpler to go through the textbook checking topic headings.

The views of the unsuccessful students with respect to preparation for the final examination are of doubtful value; in the first place because they were unsuccessful, and, secondly, because so few of them indicated a response to this item. That they had given some thought to this problem, however, was shown by the notes appended to their replies to this item saying that this was the method they planned to employ. Of this group, sixteen said that the questions on the assignments would be employed as a guide for preparing for the final examination. Seventeen planned to use the graded assignments and two were going to check

the topic headings in the textbook.

TABLE 26

REPLIES CONCERNING PREPARATION FOR FINAL EXAMINATION
(Inventory Item Twenty-five)

Item	Successful %		Unsuccessful %	
To prepare for the final examination I				
(1) used questions on the assignments as study guide	52	33.3	16	45.7
(2) used graded assignments as study guide	89	57.1	17	48.5
(3) checked topic headings in the text	15	9.6	2	5.8

Summary

This study was undertaken in the hope that a pattern of procedures for studying correspondence courses might be developed that would lead to the successful completion of the work; that is, that there would be an obvious difference between the manner in which the successful student and the unsuccessful student attempted to meet the requirements of a correspondence course. The data here presented have failed to make such differentiation. In the foregoing discussion of the responses to the items of the inventory, whenever the data was statistically significant that fact was noted. In cases where it appeared that the data might be statistically significant, the fact that it was not was also pointed out. Nevertheless, by taking the majority of the responses of the successful students to each item, it is possible to present a plan of study that would be typical of this group.

This typical student scheduled a regular period of study daily. He found that the ideal study period was between two and three hours in duration. During this study period he paused two times for relaxation. He did his studying at home after his evening meal in a place where he was largely free from interruptions. The student worked at a desk or table and found in the preparation of an assignment about two times as much time was devoted to reading as to writing.

The student began work by first trying to determine the purpose of the particular assignment. His next step was to read the instructor's comment or notes. A preliminary survey of the assigned reading in the text was made before intensive study of the material was undertaken. The assigned material in the text was read two times before an attempt was made to write answers to the assignment questions. In courses where reference material was involved, this material was read after the reading of the text assignment was completed. The student found it helpful to make notes on the reference material, although it was not necessary to make an outline of the assignment. Frequently during study the student stopped at the end of paragraphs or sections in an attempt to recall the main points that had been covered. Regardless of the efficacy of these procedures the student still found it prudent to make frequent reference to the text while writing his assignment.

This typical successful student found that frequent reference to the dictionary was necessary. He often interrupted his progress to find original illustrations to substitute for examples in the text and attempted to relate the materials in this course to what he had already

learned elsewhere. He was able many times to find practical applications of the principles presented in the text. When he encountered a problem he could not solve, or question he could not answer, he asked a question to show the instructor where he was having difficulty and sent in with it whatever he had been able to accomplish. This student looked up the instructor's suggestions on graded assignments when they were returned to him and he used these graded assignments as the study guide in his preparation for the final examination.

It has already been pointed out that five of the study methods employed by this student differed from those of his unsuccessful colleague to a marked degree. These were in the practice of scheduling a regular time for study, in working in a place where he was free from interruption most of the time, in stopping for relaxation during his study periods, in the time selected for study, and in being able to find practical applications of the principles presented in the text always or frequently. There are in addition, some cases in which the methods employed by the successful students differ to an appreciable extent from those of the unsuccessful students. While it was impossible to show a statistically significant relationship between the employment of these methods and successful course completion, there are three instances of this nature that should be mentioned, particularly because it appears that in each there is a potential effect upon course completion.

Item Six questioned the enrollees upon their habits with respect to the place where their studying was done. The replies to option (3) show that only 6.6 per cent of the successful students prepared their

assignments at the place where they worked. By contrast, 18.7 per cent of the unsuccessful stated that they followed this practice. The responses point to the conclusion that one's place of employment does not afford a congenial atmosphere for correspondence work. In Item Seven 13.6 per cent of the unsuccessful group said that they prepared assignments on a sofa or lounge, while only 6.1 per cent of the successful followed this method. Here again, there seems to be evidence of an adverse effect on course completion.

The tabulation of the replies to Item Eighteen shows that more than one-half of the successful respondents stated that it was their practice to substitute original illustrations for examples given in the text always or frequently. In contrast more than one-half of the unsuccessful students replied that they did this infrequently or not at all with the largest number in the latter category. The ability to make such a substitution implies an understanding of subject matter which may contribute to successful course completion.

CHAPTER III

PURPOSE, DEADLINE, PRIOR COLLEGE WORK AND PREVIOUS CORRESPONDENCE STUDY AS FACTORS IN COURSE COMPLETION

Purpose

The reasons given for enrolling in correspondence courses are almost as varied as the individuals who enroll. It will be noted that the first page of the inventory asked the respondents to state as definitely as possible their reasons for entering the enrollment on which they reported.

From the replies it was possible to catalog the purposes of enrollment under the general headings: Teacher Certification, College Credit, Professional-Vocational Improvement, Insurance Examination, and Other. It is immediately conceded that the purpose listed as Insurance Examination belongs in the general category of Professional-Vocational Improvement but the insurance group was isolated for the purpose of more closely examining their procedures. This was a group with strong economic motivation and it was hoped that a more intensive study of it would be of special value.

It would be an oversimplification to say that enrollment in correspondence work stems from two primary reasons--economic and physical. Nevertheless, the analysis of the stated replies tends to point strongly in that direction. The most obvious case of all is that of the student who is off the campus for financial reasons but takes correspondence

courses in order not to drop too far behind his more fortunate fellows. Or, there is the case of the college student in the hospital because of protracted illness who is trying to make up some credit. Less obvious is the case of the teacher who needs credit for teacher certification who cannot attend commuter or extension classes because of illness in her home. Strong economic reasons motivate the student who enrolls for the purpose of professional or vocational improvement. He is generally prevented from attending residence classes because of family responsibilities. He sees in the accounting course, the business law course, the real estate course, or the insurance course a chance to better his economic situation.

Table 27 shows the distribution of the replies to the request for information concerning purpose after they had been grouped into general categories according to their nature. Seventy-eight enrollees were primarily interested in earning credit for teacher certification. The largest group was that interested in credit for degree purposes and attracted 108 people. Other than those who enrolled to qualify for the insurance examination there were eighteen who were interested in professional-vocational improvement. Those who were interested in preparing for the insurance examination numbered thirty-one and there were fourteen whose answers did not permit their being included in any of the above categories.

Of this latter group the purposes expressed by two enrollees were worthy of mention. One woman without college training enrolled for a course in contemporary poetry to get the background she felt she needed in order to serve as chairman of the poetry section of her

woman's club. A man enrolled for an accounting course to see how much accounting he could learn by correspondence because he was considering a heavy investment in the accounting course of a proprietary correspondence school. It should be added that both of these students successfully completed their work. The woman is presently enrolled for a course in American literature while the man indicated that he found out that his investment would be worthwhile and had enrolled in the commercial school's course.

TABLE 27

DISTRIBUTION OF REPLIES ACCORDING TO STATED PURPOSE

Purpose	Successful	Unsuccessful	Total
Teacher Certification	62	16	78
College Credit	67	41	108
Professional-Vocational Improvement	7	11	18
Insurance Examination	20	11	31
Other	7	7	14

When the question of purpose is equated against success or non-success in correspondence study the figures are most interesting, although caution is advised in their interpretation. Table 27 shows that 79.5 per cent of those who enrolled to earn credit for teacher certification successfully completed their work. Those who were interested in qualifying for the insurance examination were next most successful, 64.5 per cent of them completing their work. The group interested in college credit had 62.2 per cent of their number achieve success. The group

whose replies did not lend themselves to classification divided evenly between success and non-success. The weakest group of all was that interested in professional-vocational improvement of which only 38.8 per cent were successful. If the figures for the group attempting to qualify for the insurance examination are incorporated in the group interested in professional-vocational improvement where they naturally belong, the combination shows that 55.1 per cent were successful.

There are in these data some fine invitations to jump at foolish conclusions. For instance, on the face of the evidence it appears that the desire to be certified as a teacher is the best guarantee that a student will complete a correspondence course successfully. This conclusion completely overlooks the fact that persons enrolling for this purpose have had an extensive amount of college training, in fact the majority of them have college degrees; and that presumably they had had some discussion of efficient study habits in their campus courses and may have even taught such material to their own classes. Again it may be assumed that those enrolling for professional-vocational improvement are the weakest students in the lot. This is not necessarily true. It is known that these people have a tendency to discontinue course work after they get the information they seek.

In making this study there was at hand a group of enrollees that might be used for purposes of comparison and for whom a strong economic motivation could be postulated. This group was composed of those who enrolled for the two property insurance courses numbered BS 361 and 362 given by the General Extension Division of Florida. A consideration of these people now appears to be in order.

Florida statutes regulating insurance agents provide that before one may be licensed as a property insurance agent he is required to pass an examination conducted by the State Insurance Commissioner.¹ Certain education or training requirements must be met in order to qualify for this examination. Prior to the change in the requirements by the 1953 Legislature, one method of qualifying for the examination was to successfully complete both BS 361 and 362 by correspondence study. The 1953 Legislature amended this qualification requirement by providing that after October 1, 1953, persons who qualified by the correspondence study method would also have to serve a six-months' apprenticeship under a licensed property insurance agent.

The effect of this change in the law was to provide a legal deadline for many of the persons wishing to qualify for the examination through correspondence study. Numbers of those interested in becoming property insurance agents had other commitments that would not permit them to serve the required six months in the office of a licensed property insurance agent. There was, for example, the real estate broker who wished to add property insurance to his business service. While the amended statute was liberally interpreted by the office of the Insurance Commissioner in order not to work undue hardship, the ultimate effect was to set a deadline for a large number of people who wanted to get a property insurance agent's license.

In selecting the months whose enrollments should make up the sample for this study the major consideration was that they should be so

¹Florida Statutes, 1953, section 627.79

selected that the students would have had ample time to complete the courses for which they enrolled, even though they found it necessary to reinstate their enrollments after the expiration of the year allowed for completion in order to do so. February, March, and April of 1953 seemed months that would provide this time element. Then, in order to study the property insurance group more closely, the month of August, 1953, was added. This was the last month in which enrollments could be entered with a prospect of completing work before the October 1 deadline.

Table 28 sets out the details concerning all of the enrollments in the property insurance courses during the months in question. There were sixty-five enrollments in BS 361 and twenty-nine in BS 362. It should be borne in mind in considering this data that there is duplication of individuals because many applicants enrolled for both of the courses at one time.

Nineteen of the students enrolled in BS 361 cancelled, that is, did not submit a single assignment in the course. Only twenty-one completed the course successfully and twenty-five failed to finish. The results with respect to BS 362 are somewhat different. Eleven of those enrolled in this course cancelled, thirteen completed, and only five failed to complete. The comparison becomes more striking when percentages are used. Of those enrolled for BS 361, 29.2 per cent cancelled; 32.3 per cent completed; and 38.5 per cent failed to complete. Of those enrolled for BS 362, 37.6 per cent cancelled; 44.7 per cent completed; and only 17.7 per cent failed to complete. When completion rates are calculated for these two groups in accordance with the practices established for the N.U.E.A. completion rate study, the completion

TABLE 20
ANALYSIS OF ENROLLMENTS IN PROPERTY INSURANCE COURSES

Course	Month	Enrolled	Cancelled	Completed	Incomplete
BS 361	February	11	3	3	5
	March	4	1	1	2
	April	32	8	13	11
	August	18	7	4	7
	Totals	65	19	21	25
BS 362	February	8	5	3	0
	March	5	1	2	2
	August	16	5	8	3
	Totals	29	11	13	5

Note: There were no enrollments in BS 362 in April.

rate in BS 361 was 45.7 per cent while that for BS 362 was 72.2 per cent. It will be recalled that in the N.U.E.A. completion rate study, the University of Florida reported an over-all college level completion rate of 70.8 per cent for the year 1950-1951. If similar completion rates are calculated for the enrollments during the month of August, when it was assumed that the existence of a deadline would exert its greatest effect, the rate for BS 361 was 36.3 per cent and that for BS 362 was 72.7 per cent. The completion rate for enrollments in both courses in August was 54.5 per cent while the completion rate when all enrollments in both courses are considered was 53.1 per cent.

It should be borne in mind that these figures take into consideration all of the enrollments in the property insurance courses that were entered during the selected months. When inventories were sent, only one was allotted to each person who enrolled and submitted one or more assignments. This screening reduced the number of possible contacts to forty-six, of which number thirty-one responded. Table 28 shows that twenty, or 64.5 per cent, of these were successful in completing their work. On the basis of the data presented for all of the enrollments in these two courses it would appear that the sample was not particularly representative.

Certainly the data for all of the enrollments appears to indicate that as far as this group was concerned a strong economic motivation and the existence of a deadline did not go too far in promoting course completion. The data for BS 362 in the month of August do indicate that the students who had completed BS 361 and had gained the advantage of being that much nearer their goal with some experience of correspondence study

achieved much better than those who were not in this situation. Generally, however, the group did not point out any special lessons of value to the study. When their study methods were examined it was found that there were no striking differences between them and the group as a whole. In fact, the practices of those who were successful parallel almost exactly those of the typical successful student stated at the end of Chapter II.

Having to Meet a Deadline

TABLE 29

DISTRIBUTION OF REPLIES CONCERNING DEADLINES

Deadline	Successful	Unsuccessful	Total
<u>Deadline</u>			
Enrollment 1-3 months prior	20	5	25
Enrollment 4-6 months prior	40	10	50
Enrollment 7-9 months prior	10	4	14
Enrollment 10-12 months prior	2	1	3
Enrollment more than 12 months prior	18	10	28
<u>No Deadline</u>	73	56	129

Despite the negative indications derived from a study of those enrolled in the property insurance courses, the responses from all those incorporated in the study point to a strong relationship between course completion and having to meet a deadline. Respondents were asked to state if they had a deadline to meet and how far in advance of that

deadline the enrollment was entered. The replies were tabulated in accordance with the success or non-success of the students in completing course requirements and according to whether or not a deadline must be met. Table 29 indicates that 120 of those responding had to meet deadlines while 129 did not. Ninety of those with deadlines were successful while seventy-three of those without were also successful.

The replies of those who had to meet a deadline were further tabulated with respect to the number of months their enrollments were entered prior to that deadline. From the table it is evident that twenty-five of those replying had enrolled from one to three months prior to a deadline and that twenty, or 80 per cent, were successful. Fifty respondents enrolled from four to six months ahead of a deadline and forty, again 80 per cent, were successful. Fourteen enrolled from seven to nine months ahead of a deadline and ten, or 71.4 per cent, fell in the group who successfully completed their work. Only three students enrolled from ten to twelve months prior to a deadline and two of them, 66.6 per cent, were in the successful group. Finally, there were twenty-eight who indicated that they enrolled more than twelve months prior to the deadline and eighteen, or 64.3 per cent, of them were successful. Of the 129 who reported that they did not have a deadline, seventy-three, or 56.6 per cent, successfully completed their work. This group may be compared with the 75 per cent of those with deadlines who were also successful.

A Chi-square test of these data shows that there was a statistically significant relationship at the .01 level between having a deadline to meet and successful completion of a correspondence course.

An interesting speculation would be that these students who had deadlines to meet had some special methods of work that enabled them to carry out the requirements successfully. Upon examination of their replies to the items in the inventory, however, it becomes evident that the methods employed by this group did not differ to any great extent from those employed by all of the respondents. A more detailed examination of the replies to Item One, in which there was a statistically significant relation between scheduling of regular periods of study and success in course completion, should be sufficient to illustrate this point.

Reference to Table 29 indicates that there was a total of ninety successful respondents who said that they had a deadline to meet. Of these, sixty-two scheduled regular periods of study and twenty-seven did not; or, 68.8 per cent studied regularly, while 31.2 per cent did not. The data in Table 2 shows that 66.3 per cent of all the respondents also had regular periods of study while 33.7 did not. If consideration is confined only to those who reported a daily study period, the picture does not change appreciably. Forty-one of those with deadlines reported that they studied daily. Sixty-eight of all the respondents gave the same answer. In other words, 45.5 per cent of those with deadlines and 41.7 per cent of the entire group set up regular daily periods of study.

There appears to be little relation between those who had deadlines to meet in their work and the purpose for which they enrolled. Of those who successfully completed, forty-four, 48.8 per cent, enrolled to meet teacher certification requirements; thirty-three, 36.6 per cent, were working for credit for a degree; eleven, 12.2 per cent, were

preparing for the insurance examination; one student enrolled for professional-vocational advancement; and one reply was tabulated in the "Other" category. It will be seen at once that these percentages bear no relation to those recited in connection with purpose as related to successful course completion.

Effect of Prior College Work

Reference has been made to the probable effect on successful course completion of the amount of college work that the respondents had to their credit at the time of enrollment.

TABLE 30
EFFECT OF PRIOR COLLEGE WORK

Amount of College Work	Successful	Unsuccessful	Total
No College Work	7	16	23
1-29 semester hours	9	2	11
30-59 semester hours	17	10	27
60-89 semester hours	24	18	42
90-119 semester hours	32	13	45
More than 120 semester hours but no degree	20	10	30
Baccalaureate degree	43	14	57
Master's degree	10	3	13
Doctor's degree	1	0	1

That there is a definite relationship between the amount of college work that a student has had and the probability of his successful

completion of a correspondence course is shown by the data presented in Table 30. In this table the amount of college work reported at the time of the respondents' enrollment is shown in comparison with their success or failure in completing their work.

One of the most surprising outcomes of this tabulation is that which indicates that of the 249 respondents only twenty-three, 9.3 per cent, had had no college work at all. One hundred fifty-five, 62.2 per cent, reported varying amounts of college credit up to but not including a degree. There were seventy-one holders of degrees representing 28.5 per cent of the total.

Further examination of the data shows that with respect to successful course completion there is a definite relationship to the amount of college work reported. Only seven of the enrollees who had no college work successfully completed. This was 30.4 per cent of all those enrolled with no college work. In the group indicating some college credit but no degree 102, 65.8 per cent, were successful. Fifty-four, 76.1 per cent, of the degree holders also were successful. When these data were subjected to the Chi-square test, a statistically significant relationship was shown to exist between some college work and successful course completion at the .01 level and between holding a degree and success at the .05 level. This implies that the person enrolling for a correspondence course who has had some previous experience with college work may reasonably be expected to complete successfully, but the figures also show that such success is not guaranteed.

These fifty-four holders of degrees who successfully completed their correspondence courses constitute a group that might be expected

to make a special contribution to a study of this nature. They have had extensive experience in the requirements of college level work. They have an educational background that would serve as a basis for additional course work. They may be assumed to have developed a system of study methods that would expedite their work in these courses. How, then, did their replies to the items on the inventory compare with those of all the respondents as they were set forth in Chapter II?

Surprisingly enough, there is little deviation between the methods of study reported by the successful holders of degrees and those of the other successful students. This point can be made by a comparison of the replies made by both groups to inventory Items One, Three, Four, Eight, and Twenty-one. It will be recalled that these five items were the ones in which it was possible to demonstrate statistically significant relationships between practice and successful completion. The data for this comparison are presented in Table 31.

The practices of the respondents with respect to scheduling a regular period of study were examined in Item One. It is evident that the largest number of replies in both groups came from those who scheduled a regular period of study daily, Option (1). There is, however, only a small percentage difference between the practices of the two groups in this respect with the holders of degrees being slightly favored. It is also apparent that at the other end of the scale there is only a slight percentage difference in the matter of not scheduling study time at all. Again the holders of degrees lead in this respect. While there is some internal variation with regard to scheduling, it is evident that 64.8 per cent of the holders of degrees scheduled some

TABLE 31

REPLIES OF ALL SUCCESSFUL RESPONDENTS AND THOSE OF
SUCCESSFUL DEGREE HOLDERS TO INVENTORY ITEMS 1,
3, 4, 8, AND 21. PERCENTAGES IN PARENTHESES.

Item	Option						Total
	1	2	3	4	5	6	
<u>Item 1</u>							
All Respondents	68 (41.7)	28 (17.1)	5 (3.0)	3 (2.1)	4 (2.4)	55 (33.7)	163
Degree Holders	24 (44.4)	6 (11.2)	2 (3.7)	2 (3.7)	1 (1.8)	19 (35.2)	54
<u>Item 3</u>							
All Respondents	61 (36.8)	42 (25.3)	12 (7.2)	18 (10.8)	33 (19.9)		166
Degree Holders	18 (33.3)	16 (29.6)	2 (3.7)	7 (12.9)	11 (20.3)		54
<u>Item 4</u>							
All Respondents	7 (4.1)	35 (20.1)	46 (26.4)	86 (49.4)			174
Degree Holders	2 (3.4)	10 (17.3)	18 (31.0)	28 (48.3)			58
<u>Item 8</u>							
All Respondents	11 (6.7)	10 (6.1)	23 (14.1)	32 (19.7)	87 (53.4)		163
Degree Holders	3 (5.5)	5 (9.2)	4 (7.4)	13 (24.1)	29 (53.7)		54
<u>Item 21</u>							
All Respondents	24 (14.8)	123 (75.9)	13 (8.0)	2 (1.3)			162
Degree Holders	7 (12.9)	44 (81.6)	3 (5.5)	0			54

regular study period and that 35.2 per cent did not. In the entire group of successful respondents 66.3 per cent scheduled a regular time for study while 33.7 per cent did not.

Item Three concerned itself with the practice of stopping for relaxation during the study period. Here again the practices of the two groups are closely parallel. Options (1) through (4) indicated from one to four or more stops for relaxation during the study period. Option (5) was selected by those who did not stop at all. Again, there is some internal variation in practice with respect to the number of times the student stopped, but it is also evident that 80.1 per cent of all the respondents stopped for relaxation and that this same practice was followed by 79.7 per cent of the degree holders.

The time at which studying was done was the subject of Item Four. Table 31 shows that there was some tendency for more of the holders of degrees to study in the afternoon than was true of the group as a whole. Whereas 26.4 per cent of all respondents reported studying in the afternoon, 31.0 per cent of the degree holders said they employed this method. It is also evident that less than one-half of each of these groups did their studying after their evening meal.

Item Eight considered the effect of disturbance on successful completion of correspondence work. The amount of disturbance was indicated by the options (1) through (4). Option (5) indicated that the student was free of disturbance nearly all of his study period. From Table 31 it appears that the holders of degrees enjoyed something of an advantage in this respect. While it is true that 53.4 per cent of all the students compared with 53.7 per cent of the holders of degrees

reported comparative freedom from disturbance, it will be noted that whereas 19.2 per cent of all the students reported that they were undisturbed about three-fourths of the time, 24.1 per cent of the holders of degrees enjoyed this advantage. This suggests that the latter group were somewhat more able to control their general study situation.

In being able to find practical applications of the principles presented in the text, the subject of Item Twenty-one, the degree holders enjoyed some advantage over the total group of successful respondents. The data in Table 31 show that 90.7 per cent of all respondents were able to employ this method and that 94.5 per cent of the degree holders enjoyed this advantage. At the other end of the scale there were 9.3 per cent of all the respondents who could find such applications only infrequently or not at all, whereas only 5.5 per cent of the degree holders had this disability. It is noteworthy that none of the degree holders reported that they could never find practical applications of the material they were studying. This ability undoubtedly contributed to their success.

Reference to Table 29 indicates that ninety of the 120 respondents who had to meet deadlines successfully completed their courses. This group included thirty-three of the successful holders of degrees. For comparison it may be pointed out that 75.0 per cent of those with deadlines were successful and that 61.1 per cent of the successful holders of degrees were in this group. It appears that the need to meet a deadline did not affect the holders of degrees to as great an extent as it did the respondents generally.

Effect of Previous Correspondence Study

One other factor was taken into consideration in the making of this study. That was the possible effect of previous experience with correspondence courses on successful completion of home study work. That there is such a relationship is indicated in Table 32. This table sets out the records of the respondents with respect to the amount of correspondence work they had completed prior to their enrollment in the course on which they were questioned. The first impressive point about these replies is the large number of persons for whom the enrollment constituted the first venture into correspondence study. Only seventy-five reported having earned credit before through the home study method.

TABLE 32

EFFECT OF PREVIOUS CORRESPONDENCE STUDY

Amount	Successful	Unsuccessful	Total
No prior correspondence study	104	70	174
1-5 semester hours of prior correspondence study	28	8	36
6-10 semester hours of prior correspondence study	23	4	27
11-15 semester hours of prior correspondence study	6	3	9
16 or more semester hours of prior correspondence study	2	1	3

That previous experience with this method of instruction is not prerequisite to successful course work is illustrated by the 104 who successfully completed without such experience. There were fifty-nine

TABLE 33

REPLIES OF ALL SUCCESSFUL RESPONDENTS TO INVENTORY ITEMS
1, 3, 4, 8, AND 21 COMPARED TO REPLIES OF SUCCESSFUL
STUDENTS WITH PRIOR CORRESPONDENCE STUDY EXPERIENCE.
PERCENTAGES IN PARENTHESES

Item	Option						Total
	1	2	3	4	5	6	
<u>Item 1</u>							
All Respondents	68 (41.7)	28 (17.1)	5 (3.0)	3 (2.1)	4 (2.4)	55 (33.7)	163
Correspondence Students	25 (42.3)	10 (16.9)	1 (1.9)	0	0	23 (38.9)	59
<u>Item 3</u>							
All Respondents	61 (36.8)	42 (25.3)	12 (7.2)	18 (10.8)	33 (19.9)		166
Correspondence Students	22 (37.3)	11 (18.6)	4 (6.8)	7 (11.9)	15 (25.4)		59
<u>Item 4</u>							
All Respondents	7 (4.1)	35 (20.1)	46 (26.4)	86 (49.4)			174
Correspondence Students	1 (1.6)	13 (21.3)	11 (18.1)	36 (59.0)			61
<u>Item 8</u>							
All Respondents	11 (6.7)	10 (6.1)	23 (14.1)	32 (19.7)	87 (53.4)		163
Correspondence Students	2 (3.4)	5 (8.5)	6 (10.2)	16 (27.1)	30 (50.8)		59
<u>Item 21</u>							
All Respondents	24 (14.8)	123 (75.9)	13 (8.0)	2 (1.3)			162
Correspondence Students	8 (13.5)	48 (81.3)	3 (5.2)	0			59

successful respondents who had some prior correspondence study. In the group who had no prior experience 59.8 per cent were successful, whereas 78.7 per cent of the group who had previously earned credit by this method are listed in the successful category. When these data were subjected to the Chi-square test a statistically significant relation at the .01 level between prior experience in correspondence work and successful course completion was found.

It might be assumed that the group of enrollees with prior experience in correspondence work would have developed some notable study methods that facilitated their progress. That this is not particularly true is shown by Table 33 which compares their replies to Items One, Three, Four, Eight, and Twenty-one of the inventory with those of all the successful respondents. As a matter of fact, the table shows that the methods employed by this group were not quite up to the standards of all of the successful respondents. For example, in the matter of scheduling a regular time for study those with prior correspondence experience were somewhat more prone to leave their studying to chance; there being 38.9 per cent in this group compared to 33.7 per cent of all the successful enrollees. This tendency may be explained by the fact that only twenty-four, 40.7 per cent, of those who had earned credit through home study had deadlines to meet, while 75.0 per cent of all the successful students reported having to complete their work by a specified date.

In the practice of stopping for relaxation investigated by Item Three, it is evident that 25.4 per cent of those with previous experience in correspondence study did not interrupt their work for this purpose, while only 19.9 per cent of all successful students reported that

they went through their study periods without halt. The greatest variation in practice between these two groups occurs with respect to the time selected for study. The replies to Item Four show that 59.0 per cent of those with prior home study credit did their studying after their evening meal. This practice was followed by only 49.4 per cent of the entire group. It is also evident that this variation was largely the result of considerably fewer of the correspondence students scheduling their study periods in the afternoon.

Similarly, 50.8 per cent of those with home study experience indicated that they were free from interruptions in their work in the replies to Item Eight, whereas the successful group as a whole reported that 53.4 per cent of them were able to proceed free from disturbance. It will be noted, though, as in the case of the successful holders of degrees, that the replies to option (4) indicate that a much larger percentage, 27.1 per cent, of those who had previously earned credit through correspondence were free from disturbance three-fourths of the time than was generally true of the whole successful group. This again suggests that the home study group had a better over-all control of their study situation.

Only in the practice of being able to find practical applications of the principles presented in the text do the students with previous experience in correspondence study show an advantage over all the successful respondents. The replies to Item Twenty-one indicate that never were those with prior home study experience unable to find such applications. To the contrary, 94.8 per cent of this group were able to employ this method always or frequently while this was true of only 90.7 per cent

of all the respondents and 1.3 per cent of this latter group, even though successful, reported the inability to ever employ this method.

Some other details regarding these students may be noted. There were fifteen successful holders of degrees among them. These constituted 25.4 per cent of the group. All of the remainder with the exception of one person had college credit other than that earned through correspondence study. The purposes for which they enrolled covered the entire list previously suggested. Nineteen, 32.0 per cent, enrolled for teacher certification. Twenty-nine, 48.9 per cent, wanted to earn credit for a degree. Two, 3.4 per cent, were interested in professional-vocational improvement. Five, 8.5 per cent, undertook the course work to meet the requirements for the insurance examination. Four, 6.8 per cent, expressed purposes that were included in the "Other" category.

Summary

The data presented shows that many factors influence the completion of correspondence courses. It was pointed out that the purpose for which a student enrolled had a marked effect on the prospects of his carrying his work to a successful conclusion. It was also shown that in the necessity to complete work by a definite time there was a statistically significant relationship to successful course completion. The same statistically significant relationship was also found to exist in the case of prior collegiate work and previous correspondence study experience.

The detailed analysis presented with respect to each of these factors demonstrated that in many instances the same individual was making

a contribution to the conclusion that was being drawn concerning the effect of each factor. That is, that the successful student who enrolled for teacher certification also appeared as the successful student with a deadline to meet and that he had prior collegiate work and some previous experience with correspondence study. This being the situation, it must be concluded that, although each of the factors considered can be shown to exert a strong influence when taken by itself, it is not possible to point to any one of them as the sole reason for successful course completion.

CHAPTER IV

SUMMARY AND CONCLUSIONS

Increasing Importance of Correspondence Study

Life in modern society imposes many demands that people broaden their knowledge in order to keep abreast of the times. For many, because of the responsibilities they have acquired since finishing their formal schooling, the correspondence course provides the primary method of getting the information needed to improve their vocational efficiency or to satisfy a desire for cultural enrichment. The teacher wanting to renew a certificate, the employee seeking a better position, and even the civilian trying to keep abreast of military reserve requirements have come to rely on correspondence study as an important educational method to supplement other established ways of learning.

An indication of the extent to which people have come to use this method of increasing their knowledge is found in the 360 per cent gain in enrollments in college courses in the two decades between 1930 and 1952 reported by the members of the National University Extension Association. While circumstances make it impossible to assemble a complete set of enrollment figures for any one year, it may be conservatively estimated that one and a quarter million enrollments are entered annually in correspondence courses offered by colleges and universities, the armed forces, and commercial correspondence schools.

The result of the increasing activity in home study has been to focus the attention of professional educators upon it and to subject it to the same critical study that has been applied to other phases of education. For the most part the studies that have been conducted up to the present time have been concerned largely with the subject of student achievement. There have been, however, some studies of other phases and the sub-committee on research of the Committee on Correspondence Study of the National University Extension Association is currently making an investigation of completion rates in correspondence work.

Purpose of the Study

This study, too, was concerned with correspondence course completion, although it was less concerned with the number of persons who completed than it was to determine the possible effects of certain factors on successful completion of courses. One of the objectives was to determine the study methods employed by home study students and to see whether completion or non-completion could be attributed to the methods used. An answer was also sought to the question whether the practices followed were consonant with those suggested by educational psychologists. The study also tried to discover if there was any relation between the purpose for which a course was taken and completion of the course. Another objective was to discover if there was any relationship between the proximity of a deadline for completion and actual course completion. The degree of relationship between previous experience with home study work and course completion was sought. Finally, an attempt was made to determine whether the amount of prior collegiate

experience a student may have had exerts a demonstrable effect on course completion.

Methods Used in the Study

In order to assemble data on the actual methods of study employed by correspondence students an inventory was prepared incorporating suggestions most frequently found in the writings of educational psychologists concerning good study habits. The inventory also included some items that were pertinent only to correspondence study. In addition, respondents were asked to state as definitely as possible their purpose in enrolling and whether or not it was necessary for them to complete by a certain time. They were also asked to indicate how long prior to this deadline the enrollment was made. Data concerning the amount of correspondence credit they had previously earned and the amount of college credit they had obtained at the time of their enrollment were taken from their enrollment applications in the files of the General Extension Division of Florida.

A list of possible contacts was prepared including all of the persons who entered enrollments for college level courses with the General Extension Division during the months of February, March, April, and August of 1953. This list contained 666 names. After removing duplications and deleting the names of 140 enrollees who submitted no assignments on their courses there were 441 possible contacts to whom the inventories were mailed. Completed inventories were received from 249 of these and thirty-one were returned as undeliverable. The returns represented 63.4 per cent of the inventories sent out. One

hundred sixty-eight replies were from students who had completed their work. Eighty-one replies came from enrollees who had not. In order to enhance the possibilities of comparison, those students who completed their courses but who received final grades of "D" or "E" were classified as unsuccessful and their replies were incorporated with those who did not complete their work.

Results of the Study

The tabulation of the replies of the students indicated that the methods of study employed by them accorded well with the suggestions made by educational psychologists. In only a few instances was it possible to determine that the use of a certain method made a statistically significant contribution to course completion as far as this group was concerned. These methods were: having a regular period for study, of stopping for relaxation, of studying at a time other than in the evening, of being able to work in an atmosphere free of disturbance, and of being able to find practical applications of principles involved in the work.

Synthesized Plan of Study of Typical Successful Student

The data assembled on methods of study did not point out an obvious difference in the practices followed by successful and unsuccessful students in their correspondence work. It was possible, however, to synthesize the plan of study used by the typical student who successfully completed the requirements of a correspondence course.

This student scheduled a regular period of daily study two to three hours long. During this period he stopped two times for relaxation. His studying was done at home after his evening meal in an

atmosphere largely free from disturbance. The student worked at a desk or table and found about two times as much time was devoted to reading as to writing in the preparation of an assignment.

In the preparation of a particular assignment the student's first object was to determine its purpose. To help in this, he read the instructor's comments or notes before doing any of the other reading called for in the assignment. The reading of the material in the textbook was begun by making a preliminary survey of the items to be covered before intensive study was started. The material in the text was read two times before writing the answers to the questions on the assignment. If reference reading was required in the course, this was done after the reading of the text assignment was completed. The student generally took notes on the reference reading, but did not make an over-all outline of the assignment. Frequently during study the student stopped at the end of paragraphs or sections to attempt to recall the main points that had been made. Despite these procedures, reference was made many times to the text as the written work was being prepared.

This typical successful student found that reference to the dictionary was often required. He frequently interrupted his progress to find original illustrations to substitute for examples in the text and attempted to relate the materials in the course to what he had already learned elsewhere. The student was generally able to find practical applications of the principles presented in the text. When a problem could not be solved, or a question could not be answered, he formulated a question that would show the instructor where he was having trouble and sent it in with whatever he had been able to accomplish.

When graded assignments were returned, the instructor's suggestions were investigated and these graded assignments were generally used as the study guide in the student's preparation for his final examination.

Effects of Other Factors

In the investigation of the effect that the purpose for which a course was taken might have on successful completion of the course, it was found that the replies of the enrollees could be classified in four major categories. The desire to obtain college credit for degree purposes was the most popular with this group of respondents. This category attracted replies from 108 persons of whom 62.2 per cent were successful in completing their work. Teacher certification was the next most popular category, attracting seventy-eight replies. Of those indicating this as their purpose in taking home study courses, 79.5 per cent were able to successfully complete. Forty-nine of the replies came from persons interested in professional-vocational improvement. This group was less successful in course accomplishment. Only 55.1 per cent of the group completed successfully. The remaining fourteen replies were of such a diverse nature that they were grouped as "Other" and these were equally divided between success and failure in course completion.

Within the ranks of those seeking professional-vocational improvement were included those who enrolled for the property insurance courses to prepare for the agent's qualification examination administered by the State Insurance Commissioner. It was postulated that this body of enrollees had a strong economic motivation for enrollment and

a deadline to meet and that these two factors working together might exert special influence toward successful completion in their cases. Replies were received from thirty-one persons in this category. Of these, 64.5 per cent were in the ranks of the successful. Careful analysis of the methods of this group, however, failed to develop any appreciable differences between their methods of study and those of the entire group of successful respondents. It was also apparent that in their cases purpose was not as strong a factor as it was in the cases of those who took correspondence courses to meet teacher certification requirements.

The necessity for meeting a deadline by which a course must be completed appears to exert a strong influence upon successful work in home study. In fact, as far as these respondents were concerned, there was a statistically significant relationship at the .01 level between having to meet a deadline and successful course completion. The replies concerning this factor were nearly equally divided. There were 120 who had to meet a deadline while 129 did not. Of those reporting that they had to meet a deadline 75 per cent were successful. The proximity of the deadline also appeared to be important. This is evidenced by the fact that 80 per cent of those who enrolled from one to six months ahead of the deadline were successful, whereas only 64.3 per cent of those who had more than a year to meet their deadline completed their work successfully. Nevertheless, these percentages are in sharp contrast with that of the group who did not have to meet a deadline of whom only 56.6 per cent were successful.

Most of the respondents had had college experience and this

factor exerted a definite influence on their correspondence work. Only 9.3 per cent of the enrollees had no college credit at the time they undertook their study; of these, 30.4 per cent were successful. One hundred fifty-five of the replies came from persons who had credit in varying amounts, but who had not earned degrees. These constituted 62.2 per cent of the total respondents and 65.8 per cent successfully completed their work. Seventy-one, 28.5 per cent, had college degrees including one on the doctorate level. Of this group 76.1 per cent were in the ranks of the successful. These replies showed statistically significant relationships between successful completion and having some college credit at the .01 level and between successful completion and having a college degree at the .05 level.

It is not surprising that the person who holds a college degree should be much more likely to successfully complete home study work than the person who does not, or who has had no college experience at all. In an attempt to determine whether these successful degree holders might have employed the methods of study in a way markedly different from the group as a whole their replies to the inventory items were separately catalogued and compared with the replies of all the respondents. No great deviations in practices were shown and this was demonstrated in a comparison of the replies of the successful degree holders to inventory Items One, Three, and Eight with those of the successful group as a whole.

The study also showed that there is a statistically significant relationship at the .01 level between successful completion of correspondence work and prior experience with this type of educational

experience. While only 30.1 per cent of the respondents had taken home study courses prior to the enrollment that included them in the study, 78.7 per cent of this group were successful. Of those who had not previously taken correspondence work, only 59.8 per cent were successful.

The replies of the successful students who had prior experience with home study to the inventory items upon comparison with the replies of all enrollees failed to produce any salient deviations from the practices of the entire group; although an analysis of the replies of the two groups to inventory Items One, Three, and Eight showed that the practices of those who had had correspondence course experience were slightly less desirable than those of the entire group.

Recommendations to Students and Directors

The results of this study point to the conclusion that in home study, as in all other methods of education, there is no royal road to learning. There is no set of study practices whose employment will guarantee success. Nor, does having a definite purpose, a deadline, prior collegiate residence, and previous experience of correspondence work, all strongly influential, assure that a student will complete a course successfully.

The correspondence study student may not be able to enter a course with prior college work or previous experience with home study as a part of his educational background. These are factors over which he may not have control. Nevertheless, the results of this investigation indicate that he can anticipate success in his work by following

the methods of study employed by the typical successful student mentioned above and by setting a definite time for the completion of his work at some date between three and six months after his enrollment.

Based on the findings of this investigation a change in the format of the usual correspondence course assignment that would place the instructor's comments ahead of the assigned reading can be recommended to those in charge of course preparation. This change would lead the student into his work more expeditiously. It is also suggested that an expansion of the usual directions for study distributed with courses is in order. The student, new to home study, should be particularly impressed with the desirability of employing those methods which promote retention and recall and with the importance of sending in questions to his instructor concerning parts of any assignment which he does not understand.

Suggestions for Other Investigations

This study has suggested the possibilities for several further investigations. One of these would be to confine the research to a single subject area. Another would be to study the difference in methods employed between subject areas, that is, to see to what extent the practices of successful students of history differ from those of successful students of mathematics or engineering courses. An investigation of this type, however, will require data on a much larger scale than was available in this study.

If information on the study methods of a large number of students were available, it would be possible to consider more fully the effects

of certain factors. For example, how do the methods of study of those who enrolled for professional-vocational improvement, who had a deadline to meet, who had a college degree, and who had no prior experience with home study work, compare with the study practices of those in the same condition except with no prior collegiate experience?

Other investigators may very well find reason for dissatisfaction with the inventory or some of the items. No argument is here presented that it is not subject to being made better, or more definitive. One possibility for improvement that might be investigated is that the statement of some of the items could be made in a form that is less leading.

Finally, it is suggested that the whole study might be broadened to include students of a number of extension divisions, geographically separated. If such a study is undertaken, it is suggested that it be concerned with only successful students. The experience reported here appears to show that good and poor methods of study are fairly equally divided between the successful and unsuccessful student and the elimination of the unsuccessful student would not detract too much from the validity of the findings, if the study were primarily concerned with the study methods of successful students. Moreover, by considering only the successful student, the inventory can be put in his hands shortly after he finishes his course, while his practices are still fresh in his mind. To include the student who fails to complete a course after sending in one or more assignments requires a delay until the time allowed for course completion expires before the student can be contacted. This time allowed for completion is generally one year and by that time the

student who did not complete more than one or two assignments is somewhat uncertain as to just what his practices were. A further argument for eliminating this student lies in the fact that those who fail to complete are less likely to return the inventory.

There are many other possibilities for research in correspondence study. The direction which investigators might take is limited solely by their own particular interests. The whole field of course construction, for example, is open to investigation. In view of the increasing use of this method of instruction, it is hoped that many more studies of it in all its phases will be undertaken.

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APPENDIX A

Name _____

Course _____

Inventory of Study Methods Employed By Correspondence Study Students

The purpose of this inventory is to catalog the methods used by students in connection with correspondence study courses. It is not a test. Consequently, there are no right or wrong answers and no scores or ranks will be assigned to the papers.

The ideal way to conduct a survey of this kind would have been to ask you, "What did you do?". This would have involved more work on your part than we felt free to ask of you. At the same time, it would have involved possible misinterpretation and errors in cataloging on our part. Consequently, we have developed the series of items included in this inventory after examining several suggestions for study and talking with many students.

Please remember that the only thing we are interested in is, WHAT DID YOU DO? What you may consider the best response to any item is immaterial and is at best only a matter of opinion. The method you employed is what we want to know. If one or more items suggest procedures that will help you in subsequent study, we shall be happy to have you try them, but please do not report them on this survey.

Before beginning the inventory please answer these questions:

1. What was your purpose in taking the course (be as specific as possible)? _____

2. Was it necessary to complete the course by a certain time?
(Yes or No) _____
How far in advance of this deadline did you enroll? _____

DIRECTIONS: Each item which follows contains a number of phrases which suggest ways in which that particular procedure might have been employed in your study. Select the phrase which best completes the statement in accordance with the procedure you used. Place the number of this phrase in the blank before the item number.

- _____ 1. I scheduled a regular period of time for the study of the course (1) daily; (2) three times a week; (3) two times a week; (4) weekly; (5) at longer intervals; (6) no scheduled time.
- _____ 2. I found the best study period to be one whose duration was (1) one hour; (2) two hours; (3) three hours; (4) four hours; (5) more than four hours.
- _____ 3. During my study period I stopped for relaxation (1) one time; (2) two times; (3) three times; (4) four or more times; (5) not at all.
- _____ 4. I found the best time for study in my case to be (1) before breakfast; (2) between breakfast and lunch; (3) during the afternoon; (4) after my evening meal.
- _____ 5. In preparing an assignment I found that the reading and writing involved took (1) about the same amount of time; (2) took twice as much time for the reading as for the writing; (3) took three times as much time for the reading as for the writing; (4) took twice as much time for the writing as for the reading; (5) took three times as much time for the writing as for the reading.
- _____ 6. I prepared my assignments (1) at home; (2) at school; (3) at the place where I work; (4) in hotels; (5) in a place assigned for the preparation of such assignments; (6) in the library.
- _____ 7. I usually did the reading and writing for my assignments (1) in an easy chair; (2) at a desk or table; (3) on a sofa or lounge; (4) elsewhere.
- _____ 8. In the place where I did my studying I was free from disturbances (1) hardly ever; (2) about one-fourth of the time; (3) about half of the time; (4) about three-fourths of the time; (5) nearly all of the time.
- _____ 9. In beginning the preparation of an assignment, I read the instructor's comment on the assignment (1) first; (2) after the assigned reading in the text book; (3) after the assigned reading in the text and the reference reading.

- _____ 10. Before attempting to write the answers to the questions on the assignment, I read the assigned reading in the text (1) one time; (2) two times; (3) three times; (4) more than three times.
- _____ 11. In beginning a new assignment I tried to determine the purpose of the assignment as the first step (1) in less than half of the assignments; (2) in more than half of the assignments; (3) always; (4) never.
- _____ 12. I made a preliminary survey of the assigned reading in the text before beginning intensive study of the material to be covered (1) never; (2) for less than half of the assignments; (3) for more than half the assignments; (4) always.
- _____ 13. I related the reference reading to the material in the text by (1) reading the reference material after all of the text material; (2) by reading both text and reference material topic by topic; (3) by reading the reference material between the readings of the text material; (4) I did not do any reference reading.
- _____ 14. I found it helpful to take notes on the reference reading (1) always; (2) for more than half the assignments; (3) for less than half the assignments; (4) not at all; (5) no reference material assigned.
- _____ 15. In my studying I stopped at the end of paragraphs or sections to attempt to recall the main points presented (1) always; (2) frequently; (3) infrequently; (4) not at all.
- _____ 16. In writing the answers to the questions on the assignments I found it necessary to refer to the text or reference materials (1) not at all; (2) only a few times; (3) quite often.
- _____ 17. I made an outline of the material covered in the assignment (1) for every assignment; (2) for three-fourths of the assignments; (3) for half of the assignments; (4) for one-fourth of the assignments; (5) for none of the assignments.
- _____ 18. I interrupted my progress to search for original illustrations to substitute for examples in the text (1) always; (2) frequently; (3) infrequently; (4) never.
- _____ 19. I attempted to relate the materials in this course to what I had previously learned (1) as often as possible; (2) most of the time; (3) only occasionally; (4) not at all.

- _____ 20. I used what I had learned elsewhere to evaluate the statements made in this course (1) not at all; (2) infrequently; (3) frequently; (4) always.
- _____ 21. I was able to find practical applications of the principles presented in the text (1) always; (2) frequently; (3) infrequently; (4) not at all.
- _____ 22. I found a dictionary necessary (1) frequently; (2) infrequently; (3) not at all.
- _____ 23. When I found a question in the assignment or a problem that I could not solve I (1) skipped it and went on to the next; (2) left a blank for it on my paper expecting the instructor to write in the correct answer; (3) tried to ask a question that would show the instructor where I was having difficulty; (4) asked a question and sent in whatever I had been able to accomplish.
- _____ 24. When I received a graded assignment, if it did not require resubmission, I (1) looked it over and put it with previous assignments; (2) searched for relations between the materials in it and the assignment on which I was currently working; (3) looked up any suggestions made by the instructor; (4) followed any suggestions made by the instructor and wrote about them on later assignments.
- _____ 25. To prepare for the final examination (1) I used the questions on the individual assignments as a study guide; (2) I used the graded assignments as a study guide; (3) I found it simpler to go through the text book checking topic headings.

BIOGRAPHICAL NOTE

Charles Roy Hughes was born April 17, 1910 in Kokomo, Indiana. He was granted a degree of Bachelor of Arts in June, 1931, and the Master of Arts degree with a major in history and political science from the University of Florida in June, 1932.

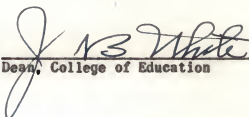
During 1932-1933 Hughes taught history and mathematics in the Auburndale High School at Auburndale, Florida. This position he resigned to become an extension class instructor in the General Extension Division of Florida in September, 1933. After three years as a full time teacher of extension history classes, he was made registrar of the School of Adult Education conducted by the Division at Camp Roosevelt, Florida, and later head of the Department of Citizenship Training.

In September, 1942, he joined the Naval Reserve and served for forty-two months as a communication officer at naval air stations. He was released to inactive duty as a Lieutenant Commander in the Naval Reserve in 1946 and returned to the General Extension Division as head of Correspondence Study. This position he has held since that time with one year's interruption. From June, 1951, until July, 1952, he was recalled to active duty and served on the staff of the Commander Naval Forces, Far East with headquarters in Tokyo.

As an undergraduate Hughes was awarded the James Miller Leake medal for excellence in American History. He is a member of Phi Kappa Phi and a charter member of Beta Xi chapter of Phi Delta Kappa.

This dissertation was prepared under the direction of the chairman of the candidate's supervisory committee and has been approved by all members of the committee. It was submitted to the Dean of the College of Education and to the Graduate Council and was approved as partial fulfillment of the requirements for the degree of Doctor of Education.

June 6, 1955.


Dean, College of Education

Dean, Graduate School

SUPERVISORY COMMITTEE:


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